AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A driving device of an ink-jet print head that discharges liquid drops through a plurality of nozzles, comprising:

a data storage unit, which stores a data block having a plurality of data items for liquid drop discharge, each data item indicating one of discharge data for which liquid drops are to be discharged and non-discharge data for which liquid drops are not to be discharged;

a data determination unit, which determines the stored data block;

a driving device shift register, which outputs the determined data block to an ~~the~~ ink-jet print head shift register; and

a clock signal generation unit, which generates first clock signals for driving the driving device shift register and second clock signals for driving the ink-jet print head shift register;

wherein:

when the data items of the plurality are identical, the data determination unit generates a first signal indicating that the data items are identical and a second signal indicating one of that the data items indicate discharge data and that the data items indicate non-discharge data ~~determines whether the data block has a predetermined array~~;

when the first signal is generated ~~the data block has the predetermined array~~, the clock signal generation unit continues generating the second clock signals and stops generating the first clock signals for a number of cycles corresponding to a number of data items in the plurality; and

when the first signal is generated, the ~~shift register~~ data determination unit outputs the ~~data block having the predetermined array~~ second signal to the ink-jet print head shift register.

2. (cancelled).

3. (currently amended) The driving device of an ink-jet print head according to Claim ~~2~~ 1, wherein:

the plurality of nozzles are provided in every block having a predetermined number of the nozzles, and a plurality of data determination units are provided in the corresponding blocks.

4. (currently amended) A control method of a driving device of an ink-jet print head that discharges liquid drops through a plurality of nozzles, comprising:

a data storage step of storing a data block having a plurality of data items for liquid drop discharge, each data item indicating one of discharge data for which liquid drops are to be discharged and non-discharge data for which liquid drops are not to be discharged;

a data determination step of determining the stored data block;

a data output step of outputting the determined data block from a driving device shift register to an ~~the~~ ink-jet print head ~~via a~~ shift register ~~resistor~~; ~~and~~

a first clock signal generation step of generating clock signals for driving the driving device shift register; and

a second clock signal generation step of generating clock signals for driving the ink-jet print head shift register;

wherein:

when the data items of the plurality are identical, the data determination step further comprises ~~determining whether the data block has a predetermined array~~ generating a first signal that indicates that the data items are identical and generating a second signal that indicates one of that the data items indicate discharge data and that the data items indicate non-discharge data; and

when the first signal is generated, the first clock signal generation step further comprises pausing the generating of ~~stopping a generation of~~ the clock signals for driving the driving device shift register for a number of cycles corresponding to a number of data items in the plurality; and ~~when the data block has the predetermined array.~~

when the first signal is generated, the data output step further comprises outputting the second signal to the ink-jet print head shift register.

5. (cancelled)

6. (currently amended) A liquid drop discharge apparatus comprising:

a driving device of an ink-jet print head according to Claim 1, and

a print head having a control unit that drives the plurality of nozzles based on the ~~data block~~ output from the driving device.